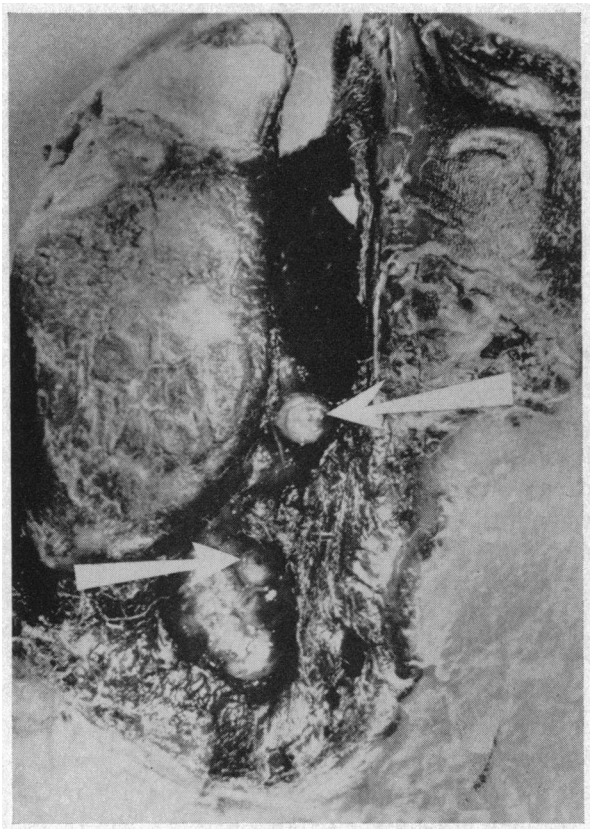

Figure 2.—Enlargement showing several larvae in the ulcer between the third and fourth toes. Spiracular plates on the posterior ends of two larvae are readily visible (arrows).

Department of Public Health, Berkeley, who identified them as *Phaenicia sericata* (Meigen). The larvae remaining in the ulcer were killed with a chloroform-soaked wad of sterile absorbent cotton applied to the surface. (Irrigation with a solution of chloroform and milk has also been recommended.[1]) A total of 63 larvae were removed from the wound. Local treatment consisted of a sterile dressing for the lesion and analgesics given orally.

Evidently the patient's habit of lounging barefoot on the porch of his sister's rural home in Sonoma County exposed him to the flies, and the gangrenous condition of his left foot attracted gravid females, which oviposited on the necrotic tissues.

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# Renal Carcinoma as an Accidental Finding on Needle Biopsy


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IT IS COMMON medical knowledge that carcinoma of the kidney is frequently an insidious and silent condition. Hematuria occurs as the first or one of the first complaints in only 60 per cent of cases, a mass in 40 per cent, pain in 50 per cent and the classic triad of a mass, pain and hematuria in only 15 per cent of patients.[9] Even pyelographic changes secondary to kidney tumors of moderate size are not always reliable, and findings in the urine of abnormal sediment or enzymes are usually manifestations of locally extensive malignant disease. The case here reported is unique in that a minute renal cell tumor was found accidentally on needle biopsy.

## Report of a Case

A 29-year-old Caucasian lawyer was found to have microscopic hematuria on a routine physical examination in 1962. An intravenous urogram at that time was interpreted as normal. There was


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a strong family pattern of "familial nephritis," three brothers having died of "glomerulonephritis" at ages 25, 28 and 30. Two brothers, aged 40 and 42, were living but they too had asymptomatic hematuria. One maternal male cousin and a paternal male cousin had nephritis; another paternal male cousin had kidney disease diagnosed as pyelonephritis. None of the brothers was deaf. In May 1964 the patient was examined as a possible kidney donor for a brother who was dying of terminal renal failure, and once again was found to have microhematuria and also 2 plus proteinuria. Because of suspected "familial nephritis" a percutaneous biopsy of the right kidney was performed. One cylinder of tissue was removed with the Franklin VIM-Silverman needle. The biopsy showed clear cell carcinoma of the kidney (Figure 1).

After the histologic diagnosis of clear cell carcinoma was reported, another intravenous urogram was made which again failed to disclose any abnormality of the renal contours or collecting systems. Selective renal angiography disclosed a 2 cm lesion in the lower pole of the right kidney, seen best in oblique views (Figures 2 and 3). The tumor had the vascular staining characteristic of renal carcinoma.

The patient's blood pressure was 120/80 mm of mercury. The abdomen was soft without masses. The hematocrit was 43.5 per cent, and hemoglobin was 15.6 gm per 100 ml of blood. The urine was a clear yellow with specific gravity of 1.011, 30 mg of protein per 100 ml and 1 to 2 erythrocytes and 2 to 3 leukocytes per high power field. Serum creatinine was 0.7 mg and fasting blood sugar 90 mg per 100 ml. Cystoscopy and retrograde pyeloureterography disclosed no abnormalities.

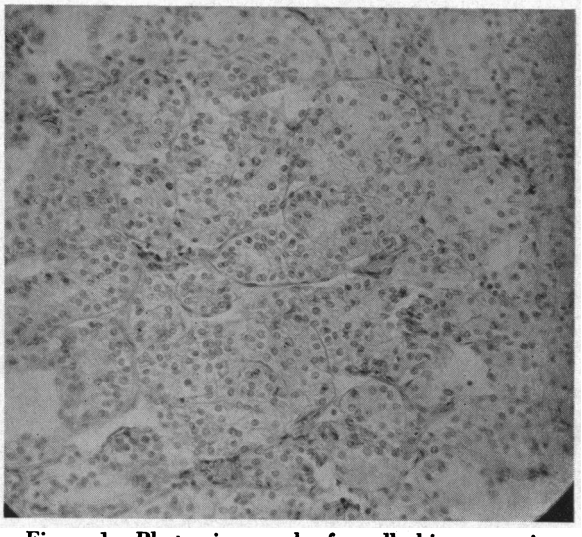

**Figure 1.—Photomicrograph of needle biopsy specimen showing clear cell carcinoma (×150).**

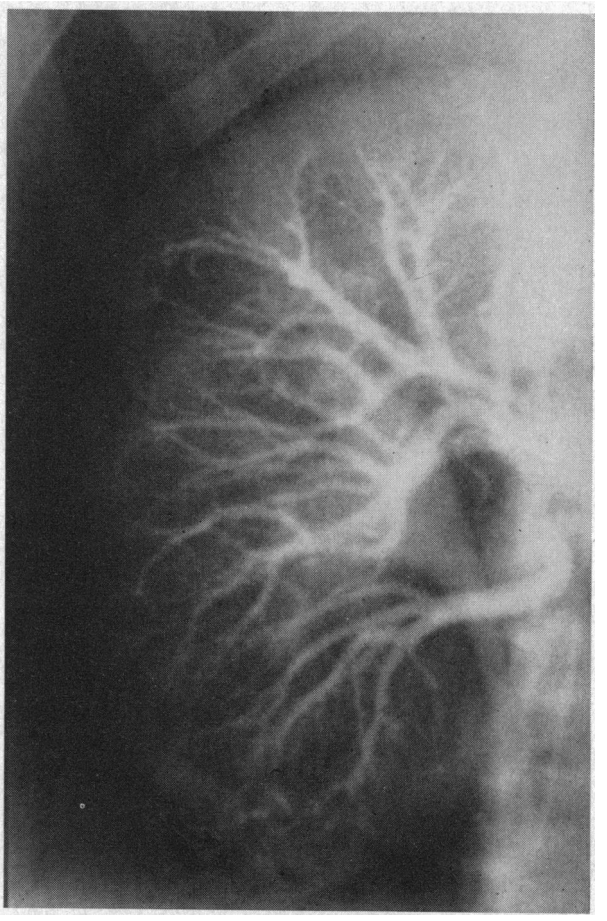

**Figure 2.—Selective right renal arteriogram showing pooling of contrast in the small tumor at the lower pole of the kidney.**

An incision was made through the right flank and the tumor was found on the surface of the right kidney at the lower pole, where it was slightly adherent to overlying perinephric fat. After the kidney had been mobilized and the renal artery had been temporarily clamped, the lower pole of the kidney was resected. About one-tenth of the kidney mass was removed with a good margin of renal tissue about the tumor (Figure 4). Gerota's capsule and perinephric fat were removed where they were adherent to the lower pole, presumably as the result of previous needle biopsy. There was no evidence of tumor in lymph nodes adjacent to the kidney.

The pathologist reported that the portion of kidney removed weighed 12 grams and measured 4×4×3 cm. The tumor was approximately 1.6 cm in diameter and was of yellow gray appearance

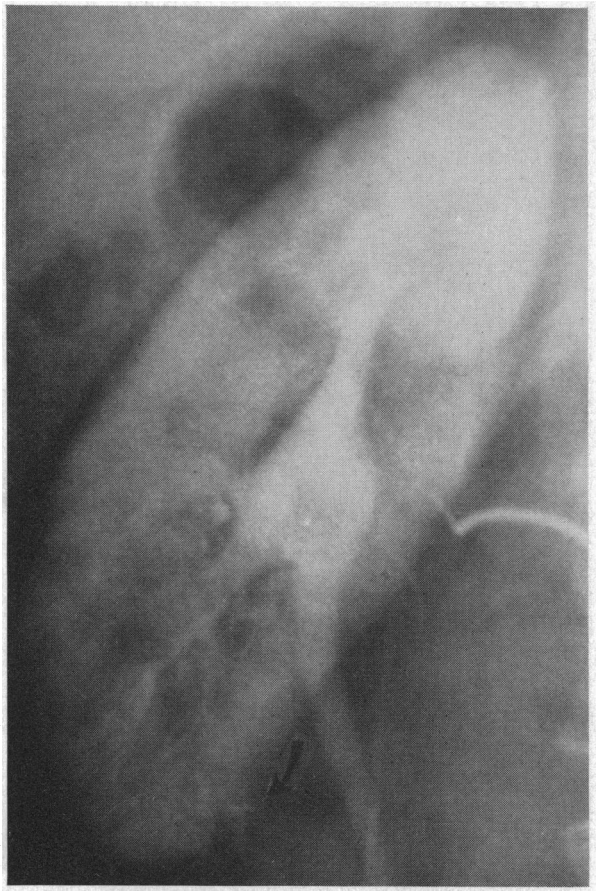

Figure 3.—Nephrographic phase, oblique view of right renal arteriogram showing tumor at the lower pole.

with some hemorrhagic areas. On microscopic examination the cortical lesion was seen to be pseudoencapsulated and to consist of sheets and cords of cells arranged in a glandular fashion. The cells had large round nuclei and clear cytoplasm, although some of them were completely vacuolated. No vascular invasion was found. The tumor was diagnosed as a cortical adenoma by one pathologist, on the basis of its size alone. The sections of remaining "normal" kidney showed rare foci of centrilobular proliferation and basement membrane thickening. The diagnosis was minimal focal glomerulonephritis.

## Discussion

Small solitary renal tumors are not infrequently found at autopsy. Uys[1] reported incidences ranging from 0.3 to 3.9 per cent. Björnberg[4] found 14 unsuspected renal carcinomas in an autopsy series of 33 cases of hypernephroma. Böttiger and coworkers[5,6] detected 89 cases of renal carcinoma in 4,560 postmortem examinations; 47 or 53 per cent of these were accidental findings and in 42 cases the tumor was the cause of death. In six of the cases in which the tumor was found accidentally, the lesion was approximately 3.5 mm in diameter, in ten cases 15 mm, in 13 cases 30 mm, in six cases 50 mm and in 12 cases more than 50 mm. Metastasis had occurred in only one instance—from one of the 30 mm tumors. Bunge and Kraushaar[7] diagnosed a renal carcinoma 77 mm in diameter. The patient complained of flank pain and was found to have renal microhematuria. Urine from the left kidney showed abnormal cells, and despite a normal appearing retrograde pyelogram, nephrectomy was carried out. The tumor was infiltrative and was diagnosed as a mixture of "hypernephroma and renal cell carcinoma." It was interpreted as a malignant neoplasm of the renal epithelium and therefore was classified as adenocarcinoma of the kidney.

In the case here reported, its lesion was diagnosed as renal cell carcinoma by the pathologist who examined the biopsy specimen (before the gross size of the tumor was known). Showing vascular "laking," the angiographic appearance of the tumor was characteristic of renal cell carcinoma. In sections of the tumor removed at operation, clear cells arranged in tubular form were observed, a histologic picture indistinguishable from adenocarcinoma. The only source of difference between the pathologist who examined the biopsy specimen and the one who reported on the operative specimens was the gross size of the tumor, which influenced one pathologist to designate it as an adenoma.

Although these small tumors are considered by some pathologists to represent benign adenomas, majority opinion[1,3,13] holds that no histologic distinction can be made between adenomas and small

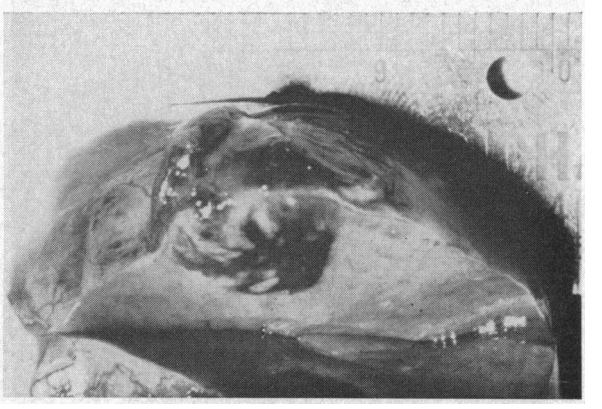

Figure 4.—Gross appearance of surgical specimen showing tumor and generous margin of kidney tissue.

carcinomas. The principal reason for the distinction between adenomas and adenocarcinomas of the kidney on the basis of size derives from Bell's statement that "tumors under 3 cm in diameter have rarely formed metastases."[3] Admittedly, this pathologic distinction is an arbitrary one and no consonant opinion exists among pathologists. Certainly all adenocarcinomas begin as small tumors, and since microscopically adenomas and adenocarcinomas are generally indistinguishable, it is perhaps logical that distinctions are made on the basis of the stage of growth alone.

In the present case, therapy was partial nephrectomy, which, considering the size of the tumor and its pseudoencapsulation, appeared to be adequate treatment. Vermooten advocated partial nephrectomy for clear cell carcinoma.[12] Conservation of as much renal tissue as possible was strongly indicated in the present case, particularly in light of the finding of focal glomerulonephritis in the remaining kidney.

The patient and his siblings resemble those with hereditary chronic nephritis previously reported.[2,8,10] Neither the patient nor his siblings manifested extrarenal abnormalities of the kind seen in some patients with hereditary chronic nephritis—nerve deafness or abnormalities of the eyes, skin or bone. The pathologic features in this case were consistent with early forms of the disorder in showing minor nonspecific changes such as hyalinized glomeruli. Lipid-filled foam cells in the interstitium between the tubules near the corticomedullary junction were not seen. A review of the literature, however, disclosed that the histologic picture of familial nephritis is not consistent and that some patients have had typical interstitial pyelonephritis whereas others have had glomerular crescents and hypercellularity.[10]

## Summary

A case of early carcinoma of the kidney was detected accidentally on needle biopsy in the study of a patient with familial nephritis. The lesion, 1.2 cm in diameter, was a solitary one in the lower pole of the kidney. The lesion was confirmed by angiography which revealed a characteristic vascular tumor pattern. Treatment was lower pole nephrectomy. Microscopically the tumor was an adenocarcinoma of the kidney, although on the basis of size alone some pathologists would classify it as an adenoma.

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# Hemorrhage from The Gallbladder

### A Report of Three Cases

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NONTRAUMATIC HEMORRHAGE from the gallbladder (hemorrhagic cholecystitis) is a rare complication of biliary tract disease. Since in signs and symptoms it may mimic several other diseases, the diagnosis is often delayed and is usually not made until operation or autopsy. The symptoms usually resemble those of acute cholecystitis, although the primary diagnosis may be massive upper gastrointestinal bleeding, hydrops of the gallbladder,

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